



Fathimath Shiham

**EVALUATION OF QUALITY IN CULTURAL HERITAGE WEBSITES: A CASE STUDY AT THE
NATIONAL CENTRE OF LINGUISTIC AND HISTORICAL RESEARCH OF MALDIVES**

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The primary goal of the study was to evaluate and understand how quality principles and current trends in web services can improve the services offered by cultural heritage web sites to users. This exploratory study has made an initial attempt to explore 'users' and 'makers' priorities, perceptions and expectations of quality of cultural heritage website using MINERVA quality framework and current trends in web services. A case study was carried out using the National Centre for Linguistic and Historical Research (NCLHR) of Maldives involving users and makers. It comprised of a qualitative approach of focus group with staff and face-to-face interviews with users.

In this study 'Users' are the people using the cultural heritage website for a specific information need and 'Website-Makers' are used to refer to the group of individuals within the organization, the staff who deal with website creation, maintenance and updating.

The results indicated that for user's quality of website started at content. All the quality principles from MINERVA, most important of which were highlighted as being effective and responsive, had to be based on this content.

On the other hand, website-makers expectation of quality ended at the content. The content could not be provided due to offline daily work at the organization and lack of resources. For website-makers, users were perceived as a unified group of people.

Users were very fluent with current trends in web services and website-makers were cautious of such new web services.



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Evaluation of quality in cultural heritage websites: a case study at the National Centre of Linguistic and Historical Research of Maldives

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Master Thesis

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Declaration and Plagiarism Disclaimer

“The opinions expressed in this dissertation are solely those of the author and acceptance of the dissertation as a contribution to the award of a degree cannot be regarded as constituting approval of all of its contents by the Division of Information & Communication Studies”.

I certify that all material in this dissertation which is not my own work has been identified and properly attributed.

Signed:.....

Date:....27.6.2009.....

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Abstract

Cultural heritage websites aim to provide people with the information they need to improve their quality of life and sense of belonging. To do this, quality in websites is one aspect which has to be taken into account throughout the process. In Maldives no user studies have been done so far on this topic.

The primary goal of the study was to evaluate and understand how quality principles and current trends in web services can improve the services offered by cultural heritage web sites to users. This exploratory study has made an initial attempt to explore 'users' and 'makers' priorities, perceptions and expectations of quality of cultural heritage website using MINERVA quality framework and current trends in web services. A case study was carried out using the National Centre for Linguistic and Historical Research (NCLHR) of Maldives involving users and makers. It comprised a mixed qualitative and quantitative approach: a focus group, face-to-face interviews, and log analysis.

In this study 'Users' are the people using the cultural heritage website for a specific information need and 'makers' are used to refer to the group of individuals within the organization, the staff who deal with website creation, maintenance and updating.

The results indicated that for user's quality of website started at content. All the quality principles from MINERVA, most important of which were highlighted, as being effective and responsive, had to be based on this content.

On the other hand, website-makers expectation of quality ended at the content. The content could not be provided due to offline daily work at the organization and lack of resources. For website-makers, users were perceived as a unified group of people.

Users were very fluent with current trends in web services and makers were cautious of such new web services.

Abbreviations

CWA- Cultural Web Application

MINERVA- Ministerial Network for Valorising Activities in Digitization

MINERVA EC- Ministerial Network for Valorising Activities in Digitization eContentplus

NCLHR- National Centre for Linguistic and Historical Research

WSIS- World Summit on Information Society

Aliases

Users: *are the people using the cultural heritage website for a specific information need*

Makers: *are used to refer to the group of individuals within the organization, the staff who deal with website creation, maintenance and updating.*

(The words 'Makers' and staff will be used interchangeably throughout the thesis)

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1. Introduction

The European Union in 2002 has started work on the Minerva Project, which supports the European Ministries of culture, working together as the National Representatives Group (NRG) in building an Information Society for all European citizens (MINERVA, 2003). Similarly, world leaders in Geneva at the World Summit for the Information Society (WSIS) summit 2003 stated that there is a “common desire and commitment to build a people-centered, inclusive and development-oriented Information society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting sustainable development and improving their quality of life...”(World Summit on the Information Society, 2005).

Cultural heritage websites aim to provide people with the information they need to improve their quality of life and sense of belonging. Once created these websites need to be maintained and improved. To do this, quality in websites is one aspect which has to be taken into account throughout the process. Users are the clientele and thus how users perceive quality has to be taken into account. Quality is a critical characteristic of any website (MINERVA, 2003) and even the simplest testing will lead to a better website than no testing at all (E-envoy, 2003). Organizations also need to stay abreast with current trends in web services

Borgman (2003) explains that today people have higher expectations of information systems. Digital Libraries should be easy to learn, to use and to relearn. They should be flexible in adapting to a more diverse user population.

In Maldives no user studies have been done so far on this topic. Thus this is an exciting and necessary endeavour to undertake.

1.1 Aim

The primary goal of the study is to evaluate and understand how quality principles and current trends in web services can improve the services offered by cultural heritage web sites to users. To do this, the research will look at ‘users’ and ‘makers’ perception of quality and current trends in web services in cultural heritage websites. ‘Users’ are the people using the cultural heritage website for a specific information need. ‘Makers’ are used to refer to the group of individuals or staff within the organization, the staff who deal with website creation, maintenance and updating. The words ‘Makers’ and staff will be used interchangeably throughout the thesis.

1.2 Objectives

- To identify users expectations from a cultural heritage websites
- To determine users priorities in using a cultural heritage website
- To explore; users perception of quality, in cultural heritage websites
- To explore; makers perception of quality, in cultural heritage websites
- To explore; users perception about current trends in web services, in cultural heritage websites
- To explore; makers perception about current trends in web services, in cultural heritage websites

1.3 Research Questions

- What is quality for cultural heritage website “users” based on web features from MINERVA framework when 'using' a cultural website?
- What is quality for cultural heritage website “makers” based on web features from MINERVA framework when 'making' cultural heritage website?
- What are the current web services “users” and “makers” want in a cultural heritage website?

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Borgman, C. L. (2003). Designing digital libraries for usability. in Bishop, A. P., Van House, N.A. & Battenfield, B. P. (eds.) *Digital library use: social practice in design and evaluation* Cambridge: MIT Press

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Office of the E-envoy. (2003). Quality framework for UK Government website design: usability issues for government websites. Retrieved February 23, 2009 from <http://archive.cabinetoffice.gov.uk/egovernment/docs/qualityframework/pdf/quality.pdf>

WSIS. (2005). World Summit on the Information Society: outcome documents. Geneva 2003-Tunis 2005. Retrieved February 23, 2009, from <http://www.itu.int/wsis/outcome/booklet.pdf>

2. Background Information

2.1 The National Centre for Linguistic and Historical Research

The National Centre for Linguistic and Historical Research (NCLHR) became an organized and systematic entity of the government as a result of Maumoon Abdhul Gayoom becoming president in 1978. At first national committees were created for Dhivehi Bahaai Adab (Dhivehi Language and Grammar) and Dhivehi Thareekh aai sagafai (Dhivehi Culture and heritage). In 1979 these two committees were officially acknowledged as the National Centre for Linguistic and Historical Research and the centre was accepted as the government's entity for carrying out these tasks. The organization currently has 62 staff.

NCLHR as an organization aims to improve and develop Dhivehi language, research and collate Maldivian history, seek out and preserve cultural heritage material and be the authoritative voice with regard to Dhivehi history with significance on a regional level. NCLHR has gone through many organizational changes and changed hands of different ministries. Now it falls under the Ministry of Tourism and Culture. The NCLHR is divided into ten sections. These include:

1. Administrative section
2. Finance section
3. Language section
4. History section
5. Heritage section
6. Workshop and training section
7. Museum
8. Information Technology section
9. Special Projects

2.2 Services at the NCLHR

The work carried out by NCLHR has been divided into three main categories which are further subdivided into work tasks.

The three main categories and their subcategories of work carried out are about:-

1. Dhivehi Language
 - Creation of Dhivehi dictionary (Basfoi)
 - Collating Dhivehi language rules
 - Competitions for developing Dhivehi language
 - Searching for old articles, book development and publishing for preserving Dhivehi languages heritage.

2. Dhivehi History
 - Recording daily occurrences for historical purposes
 - Research and collate historical information
 - Writing and publishing of books
 - Overlooking and preserving historical documents

3. Protection and preservation of Heritage
 - Discover and locate all the Maldivian heritage places and things
 - Research about Maldivian heritage places and things
 - Long term preservation and protection of such items
 - Make common the information about such work carried out and create awareness and interest among the public

2.3 NCLHR Website

In 2004 a website for NCLHR was created by outsourcing its programming and development to a private company. Initially the primary purpose of the website was to provide information about the various activities organized by the centre and information on Dhivehi language, Maldivian history and heritage. The primary content of the website was information about the organization and price lists of the publications available in English and Dhivehi.

It was decided during 2007 to maintain the website in-house as there were difficulties of updating the website. This resulted in additional modules being added as well, among them an online Dhivehi dictionary “Basfoi”.

NCLHR is registered under the government domains of <http://www.nclhr.gov.mv> and <http://www.quamiyyath.gov.mv> and it is a government website. Staff from the IT department manages the website. The NCLHR website is divided into four main parts of general information, history, heritage and language.



Figure.1: NCLHR website homepage.

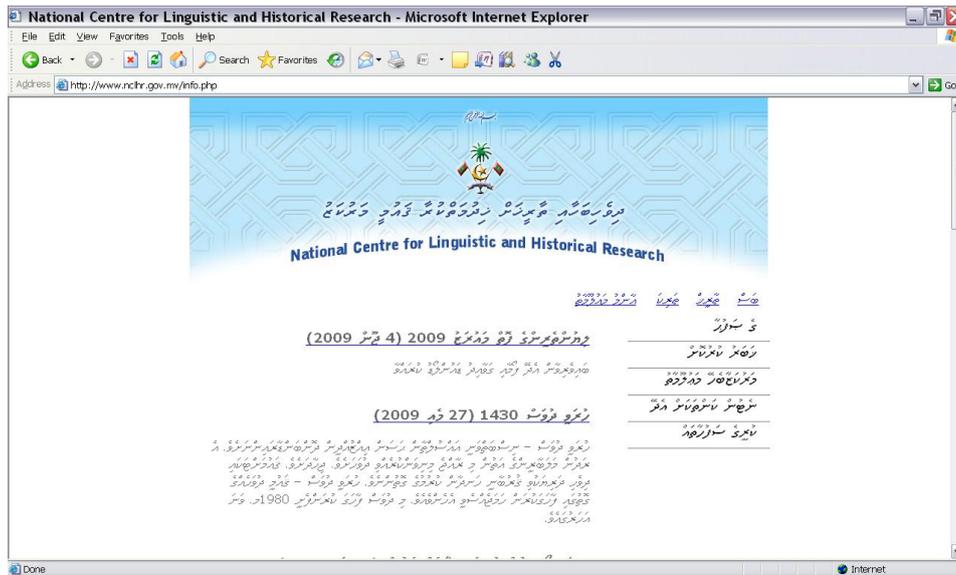


Figure.2: NCLHR website general information page

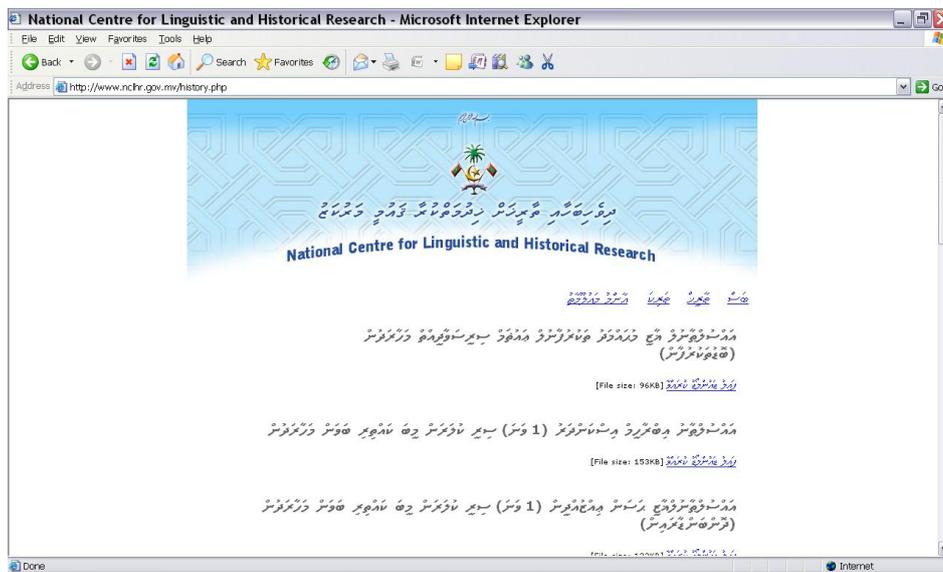


Figure.3: NCLHR website heritage page

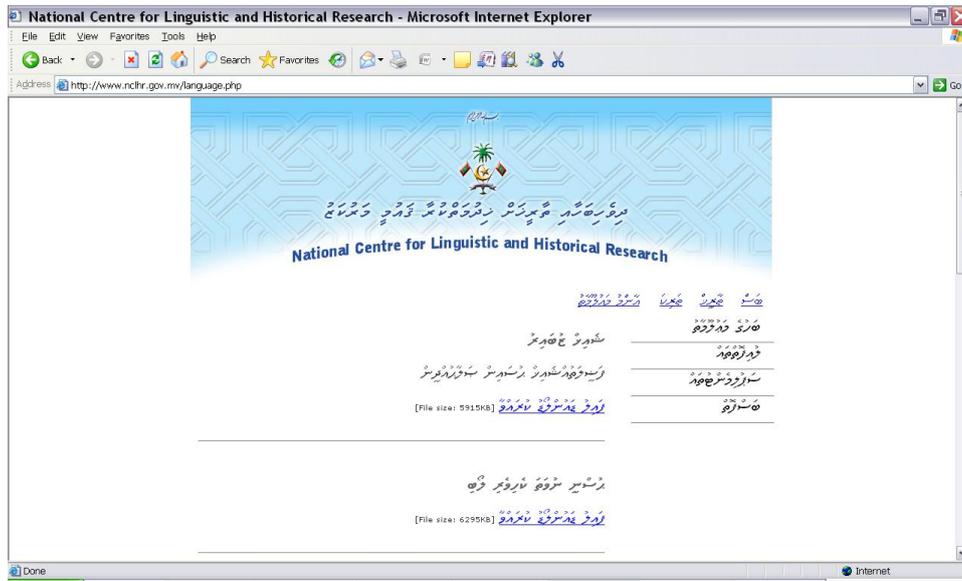


Figure.3: NCLHR website history page



Figure.4: NCLHR website Language page

On 25th October 2001 when Windows XP was released it allowed for a breakthrough for Dhivehi language which can be written using this operating system. As a result of this, “Basfoi” (Dhivehi dictionary) was created software which allowed searching for Dhivehi words. This was created first as separate software and now has been integrated to the website.

Ibrahim & Ahmed (2007) gives the “Basfoi” as an initiative for developing digital content describing it as “a CD-ROM of Dhivehi words and some common phrases used in everyday communication. It is used in government offices where the administrative language is Dhivehi. It is also widely used in academic institutions by students studying the Dhivehi language”.

In 2008 the web space provided (250 MB) to NCLHR got filled and this had been a limitation in providing web services to the user. Staff started updating only current events.

References

Ibrahim, M. and Ahmed, I. 2007. '.mv' *Maldives Digital Review of Asia Pacific* 2007—2008 204-210. Retrieved on April 4, 2009 from http://www.digitalreview.org/uploads/files/pdf/20072008/2007_C15_mv_Maldives_204_210.pdf?93d8e68695e76f3bf28837adbeb3725c=e7179dff41b03bdaa272690d8209ea58

3. Literature Review

3.1 Introduction

This literature review will look at the two different concepts of cultural heritage websites and users in the study separately. It will further look at the methodologies used in website quality evaluation models and such models which have been used previously. It will also take an in depth look at the current trends in web services which are applicable to cultural heritage websites. From the models used previously it will take quality principles/themes to use in the methodology selected for the current research.

3.2 Cultural Heritage Websites

The importance of online services in cultural institutions such as libraries, museums and archives which are modifying themselves to the digital age have been highlighted by Davies (2006) where according to him we are left with the task of creating and promoting new services[mostly ICT based] that will reach and motivate people. Different projects have been done to enhance use of local cultural heritage with the application of technology.

According to Lynch (2003) another key issue will be “recognizing interesting new services, not just choosing among a fixed portfolio of existing services” (p. 214).

As Davies (2006) points out “such projects aim to mobilize local cultural institutions for a new role as key players in transforming innovative technologies into helpful services for ordinary citizens” (p. 58). He further adds that “many local institutions are changing fast: but they will need to change even more quickly

during the coming years, re-engineering their services and institutional character” (p. 60).

Lynch (2003) concludes that “we need to think through how to ensure sources of funding, support, and data to perform these user-centered studies and also how to make them as useful as possible for institutions that build, control, and sustain the systems that populate the individuals’ information universe” (p. 214).

3.3 Users

Every person in the world may be a potential user of a website. Thus the categorization of the user is an extremely variable and big task. According to Ministerial Network for Valorizing Activities in digitization , eContentplus [MINERVA EC] (2008) is defined as “a professional person or not, who casually or with specific aims, occasionally or systematically uses the Cultural Web Application”. At the heart of every project should be the user. As Davies (2006) points out the key to success in the CALIMERA policy toolkit highlights maintaining a focus on user requirements and the needs of different target groups.

Users are studied from different perspectives. Such user studies may be explained as follows where “... user-centered approaches study services and systems as seen by users rather than service providers or information creators/gatherers. It asks how they define needs in different situations, how they present these needs to systems, and how they use what the system offers them (Sugar, 1995, cited in Williams).

The classification of users is not an easy task. Borgman (1984) explains that a new community of users is present. “Most of them lack both a technological orientation and the motivation to invest in extensive training. The new class of users sees a computer as a tool to accomplish some other task; for them, the

computer is not an end in itself. The new generation of users is much less tolerant of “unfriendly” and poorly designed systems. They have come to expect better systems and right so”. She later identifies several distinct challenges:

- 1) We need to determine what factors make computers difficult to learn and use;
- 2) We need to define a set of characteristics for “user friendly” systems; and
- 3) We need to apply the research to design (Borgman, 1984).

Lynch (2003) asserts that “we need to understand how people, in this new networked environment, form opinions, track developments and make decisions, as well as what information and resources are helpful in the process....It will require a holistic view of user behaviour, both as an individual and as a member of multiple workgroups and communities” (p.214). He draws on the conclusion that “we can reduce but not resolve the tension between empowering users and advancing institutional goals that, in reality, include only the empowering of individuals within the specific institution concerned” (p.214).

3.4 Methodology in Quality Evaluation

Regarding methodology, Davoli et.al. (2005) in looking at quality assessment of cultural websites is of the opinion that website quality assessment remains an unsettled matter, where there has been application of qualitative and quantitative separately as well as together. Biscogli et. al. (2008) nevertheless suggested that “The basic requirement for an evaluation process is to be able to quantitatively determine the degree of presence of each quality characteristic of the model in the product under analysis”. This thinking of quantifying evaluation is also present in the literature. On the other hand Stockdale & Borovicka (2008) explains that where an understanding of how users perceive the quality of a website is required, holistic methods are needed to reflect the subjectivity the user brings to the website. The subjectivity inherent in such evaluations should not be seen as a

weakness of the evaluation but rather as strength (Stockdale & Borovicja, 2008). Although these methods reduce the ability to find ‘generalisable truths’, it does allow for a local solution or local meaning to be identified (House cited in Stockdale & Borovicja, 2008). In addition, Quality is one of the main concepts in the DELOS model for digital libraries (2006) where several parameters are used to characterize and evaluate the content and behavior of digital libraries. Here also, it is indicated that some parameters are subjective in nature and can only be measured through human experiments.

3.5 Website Quality Evaluation Models

Quality is an imperative for any website. As the Internet is used more and more for education and research, the quality of online content becomes more and more important (Feliciati & Natale, 2007). The origins of website quality evaluation models are from diverse fields. Website quality evaluation models have its roots mostly in software quality models. The study of software quality dates back to 1970s (Boehm, 1978 cited in Biscoglio, 2008 et. al.). Within the many frameworks which exist to test the quality of websites from different perspectives, we find information, software, usability, commerce and public policy(Wangpipatwong, S. , Chutimaskul, W. and Papasratorn, B., 2005; Bevan, 1999; Palmer, 2003; Papadomichelaki, X and Mentzas, G. , 2008; Dunn In Kraegli, 2003; McMurdo, 1998). Biscogli et. al. (2008) similarly state that a “wide plethora of models” are proposed in the literature. In explanation for the existence of many models, Stockdale & Borovicka (2008) states that “The underlying concept of these different models arises from the consideration of what is being evaluated and for what purpose the evaluation is being carried out. This affects the different way that website elements are considered in evaluations, such as domains, the ongoing of time and even cultural differences”.

3.5.1 The MINERVA evaluation model (background)

The Minerva quality framework (Minerva Working group 5, 2005) was selected as a point of departure as it deals specifically with cultural websites. Quality is taken as a very broad, generic and a subjective principle in the Minerva framework (Minerva Working group 5, 2003). Quality is broken down into a series of ten criteria which are specific to cultural websites where the ten principles are quite generic and can be applied to any website (Minerva Working group 5, 2005). In addition, in Biscogli et al.(2008) study mentioned earlier that, it is only the MINERVA framework which is one of the two which covers all its criteria. Signore (2005) similarly highlights MINERVA as an important initiative towards website quality in cultural environment. The ten principles together with its definition of the MINVERA framework are given in Appendix 1.

The MINERVA framework equates a cultural website to a cultural web application (CWA). The principle goal of a CWA must therefore be considered that of diffusing culture to all citizens, thus favoring their growth (Minerva Working group 5, 2003). A CWA is considered to be every web application where the content deals with cultural and/or scientific heritage and its ramifications, and where at least one of the following aims are realized: supplying and spreading cultural and scientific information; and existing as an instrument for education and scientific research (Minerva Working group 5. 2003, p14.). Since NCLHR is a cultural website all the criteria can be applied from MINERVA.

The MINERVA framework, in addition, is highlighted by many authors as suitable for the evaluation of quality for cultural websites (Biscoglio, 2008; Signore, 2005).

3.6 Quality Principles

Although the quality principles are given separately, they are very much interrelated. One instance in the MINERVA (2005) is the principle transparency where the mission statement “should be available in as many languages as practical” (p. 16) thus dealing with multilinguality principle as well. The selected quality principles were obtained after studying various quality parameters which is shown in Appendix 1.

3.6.1 Transparent

In the age of globalization and good governance transparency is a major factor. This streams down to websites in providing information transparently. One aspect of transparency is that it is being built on the free flow of information. Processes, institutions and information are directly accessible to those concerned with them, and enough information is provided to understand and monitor them (TUGI, 2000)

According to (MINERVA, 2003) a quality website must be transparent, clearly stating the identity and purpose of the website, as well as the organization responsible for its management. As explained with millions of websites a user has to be sure that once a website is reached that this is in fact

- the type of website they are looking for
- the website may contain the information that the user is looking for
- the website is run by a cultural sector organization.

The main focus is on reducing user confusion and thus making sure that the user learns quickly what they will find on the site and whether the site will meet their requirements (MINERVA, 2003).

In the cultural heritage sector various indicators are available for checking the transparency of information in websites. Such indicators for transparency are given for information in general which can be provided on websites and is explained as “access to information and processes related to maintenance and conservation of cultural heritage for city dwellers and frequency of communication and information sharing with the residents (TUGI, 2000)

The following specific criteria can be further added which includes the site name which should give a clear indication of what the site is about, the URL where an explicit name is to be preferred and the mission statement of the site which should be made available to the user as soon as possible (MINERVA, 2005)

Another factor which comes into play is the trust placed on the organization. It involves expectations about the unknown and uncertain future actions of people, organizations or social objects which have an impact on one’s own choice of action (Barber, 1983).

The level of trust is affected by the relationship between the organization and the users using the organization’s website. Trust is distinguished in different ways. (Sztompka, 1999) divides trust into primary and secondary sources. From the primary sources three immanent qualities stand out which are reputation, performance and appearance.

Giddens (1990) divides trust as systems trust which is the development of trust in what he refers to as systems of expertise versus trust between individuals which is between social actors such as professionals and lay actors. He notes that while the basis of trust relations are increasingly in systems of expertise as opposed to face-to-face relationships, social actors such as professionals nevertheless are important “access points” between these systems and lay actors, representing institutionally certified standards of expertise.

3.6.2 Effective

According to (MINERVA, 2005) a quality Website must select, digitize, author, present and validate content to create an effective Website for users.

Davies (2006) is of the opinion that “A shift from the use of information on traditional paper-based carriers to electronic formats has taken place” (p. 60).

Ibrahim & Ahmed (2007) highlights the lack of digital content in Maldives “Like most developing countries, the Maldives lacks available local digital content. The National Centre for Linguistic and Historical Research (NCLHR) has attempted to develop digital content in the Maldivian language, Dhivehi.

As explained in MINERVA (2005) the total holdings of a cultural institution cannot be uploaded onto a website as there is a lot of material. Thus selection becomes critical. Research on what information resources a user needs is critical. Example of criteria which can be considered includes user demand and target audience. The information presented should be accurate. If the content is provided with supporting information it will provide additional value.

Marchioni, Plaisant, & Komlodi (2003) explain that support must be given to a wide variety of information needs. As the focus is on formalized and compromised needs they use the term “task”. These tasks are explained from the user’s perspective using five non-orthogonal dimensions:

- Complexity (the number of concepts involved and how abstract they are),
- Specificity (how confident the user is about the accuracy and the completeness of the results, ranging from a particular fact to interpretations),
- Quantity(the amount of information expected or required to meet the need),

- Criticality(how important it is to the user to meet the need), and
- Timelines (how long users expect or are willing to spend in meeting the need).

As explained in MINERVA (2005) the overall usability and look-and-feel of any Website, including cultural sites, has a major impact on the effectiveness of the site. Images should be clearly labeled, all internal and external hyperlinks should work, images should be presented at a suitable resolution and large images should be presented as low resolution thumbnails.

Palmer (2002) defined navigability as “the sequencing of pages, well-organized layout, and consistency of navigation protocols.” Nah and Davis (2002) stressed that navigation is an important mechanism and emphasized the importance of building a good quality web site with consistent links and good navigation tools. MINERVA (2005) gives examples for navigation such as that the user should know where he is on the site which is achieved with 'crumbtrail' and that the user should always be able to return to the homepage. A overview of site structure will help the user to find the information

A search box is a common feature in most websites. Also MINERVA (2005) adds that this specialized search tool should be as comprehensive as possible, in order to maximize the likelihood that the user finds what he wants.

3.6.3 Maintained

According to (MINERVA, 2005) a quality Website must implement quality of service policy guidelines to ensure that the Website is maintained and updated at an appropriate level. The focus here is on the currency of the information i.e. how updated the website is. The content needs to be updated periodically. Technical maintenance is also necessary to keep the site available to users.

Geissler (2001) also adds that “a website should be frequently updated to encourage repeat visits and keep customers well informed of new products and services, specials, discounts and other developments” p.501). While this is focused more on business it does apply to cultural websites as well.

3.6.4 Accessible

According to (MINERVA, 2005) a quality Website must be accessible to all users, irrespective of the technology they use or their disabilities, including navigation, content, and interactive elements.

Appropriate consideration needs to be given to the users with special needs, as Craven & Booth (2005) urges “to aid a better understanding of accessibility and help foster a culture of social inclusion and universal design, the users themselves also need to be considered” (p. 180).

The accessibility principle focuses on the need to serve all members of the user community. These includes blind and partially sighted people, deaf and hard of hearing people, people with motor nerve problems and dexterity issues, people with reading difficulties or people with learning difficulties (MINERVA, 2005)

3.6.5 User-Centered

According to (MINERVA, 2005) A quality Website must be user-centered, taking into account the needs of users, ensuring relevance and ease of use through responding to evaluation and feedback.

In assessing users for the creation of the National Digital Library Marchioni, Plaisant, Komlodi (2003, 140) explains the interface challenges posed . This includes the entire range of US citizenry:

- Users of different age,
- Users representing the entire spectrum of education levels,
- Users with a range of cultural and ethnic perspectives,
- Users with special physical and cognitive needs,
- Users who vary in their experiences with computer technology,
- Users with a large variety of experiences specific to their visit to the NDL,
- Users who vary in experiences in the domain of the information problem they bring to the NDL, and
- Users who vary in their experiences with libraries and research collections

Users need to be consulted to ensure that the website meets user needs and expectations. Facilities for feedback must be provided. Users can also contribute to the richness of a cultural Website by enabling users to create additional content, linked to existing items or exhibits (MINERVA, 2005)

3.6.6 Responsive

According to (MINERVA, 2003) a quality website must be responsive, enabling users to contact the site and receive an appropriate reply. Where appropriate, encourage questions, information sharing and discussions with and between users.

Responsiveness is concerned with the ability for the site and the site owners to respond to user questions and suggestions. Responsiveness goes beyond the issue of user-centricity, because it includes the concept of user participation and user content production, rather than simply user consumption of content. The notion of responsiveness must be supported and implemented within the organization. A specified member of staff must have time and resources allocated to answering queries and to managing any fora or other online facilities for user interaction. Procedures must be in place to approve user contributed content and to remove material which is not suitable (MINERVA, 2005).

3.6.7 Multilingual

According to (MINERVA, 2003) a quality Website must be aware of the importance of multilinguality by providing a minimum level of access in more than one language.

As further explained in MINERVA Plus (2006) Information technologies dramatically changed users' behavior at the end of twentieth century and a constant increase in demands and expectations from new services can be observed. Some countries report that the number of virtual visits to cultural institutions is becoming higher than real visits (p. 14). This has resulted in the spreading of multilinguality in websites.

A cultural Website must aim to go beyond its national and linguistic boundaries and to serve the widest possible number of [...]citizens. The audience for the cultural material goes beyond linguistic and national boundaries. A high-quality Website will aim to provide at least a basic service to those who do not speak the 'mother tongue' of the Website. Multilinguality should be planned at the earliest stage of Website design. (MINERVA, 2005)

3.6.8 Interoperable

According to (MINERVA, 2005) a quality Website must be committed to being interoperable within cultural networks to enable users to easily locate the content and services that meet their needs.

This can be done by considering how it can interface with other cultural Websites and with entities, such as cultural portals, which are higher and lower in the information hierarchy. The details of any interfaces that the site exposes for interoperability purposes should be fully and clearly documented, to facilitate subsequent integration into distributed cultural resources (MINERVA, 2005).

3.6.9 Managed

As defined in MINERVA (2003) a quality Website must be managed to respect legal issues such as IPR and privacy and clearly state the terms and conditions on which the Website and its contents may be used.

In addition the MINERVA EC Group (2008) explains that new ways of accessing is the contents of cultural institutions are created by digitizing and providing cultural heritage material online “where anyone, anywhere, can view the material. The educational, cultural and quality of life benefits of such access are clear. However, such open access also means that third parties can view, copy and manipulate cultural content beyond the control of the institution.” (p. 6).

The primary concern of this principle is to ensure that due care and attention have been paid to non-technical, non-cultural issues such as intellectual property rights (IPR) management and privacy. This principle focuses, therefore, on the ethical and legal aspects of Website provision (MINERVA, 2005)

3.6.10 Preserved

According to (MINERVA, 2005) a quality Website must adopt strategies and standards to ensure that the Website and its content can be preserved for the long-term.

With the rapid change in technology there is a risk factor of losing the data in cultural institutions thus preservation measures can be taken in the planning process. The key focus for long term preservation is the digitized cultural material that is hosted on the Website. Use of standard technologies is advised in the literature (MINERVA, 2005).

3.7 Current trends in web services

MINERVA EC (2008) gives a detailed introduction to the current trends in web services. It is concluded that a paradigm shift has taken place in the way users use the internet. As such, new services have come to the fore. These services were taken as a point of departure and others were selected from other literature. They include **Blogs, Wikis, Content in a pod, Micro content, Social networking sites, Multi User Virtual Environments and RSS feeds.**

BLOGS: A blog is defined as “a hybrid between a diary and journalism on-line, characterized by chronological ordering of information” (p. 49). Blog software often includes RSS feed generation. (Wusteman, 2004)

WIKIS: is defined by (MINERVA, 2008) as “a website that can be modified by its readers. The aim of a wiki is the sharing, exchanging, storing and optimizing of knowledge in an atmosphere of cooperation” (p. 50).

CONTENT IN A POD: is defined by (MINERVA, 2008) as a “system that makes it possible to automatically download documents (generally audio or video) called *podcasts*, using a programme (“client”) that is usually free of charge called a *feeder*” (p. 53.).

MICRO CONTENT: This includes sharing, bookmarking and tagging of social content. Social bookmarking is defined by (MINERVA, 2008) as “a service provided on the web, through which lists of *bookmarks* created by users are made available for free consultation and for sharing with other users”(p. 55).

SOCIAL NETWORKS: In a Social networking site(MINERVA, 2008) the “network of social relations that each one of us weaves every day in the various spheres of our lives can thus “go online”, be organized into a consultable “map”, and be enriched with new contacts” (p. 61).

MULTI USER VIRTUAL ENVIRONMENTS (MUVE): MUVE is described in (MINERVA, 2008) as “online, multi-user virtual environments, sometimes called “virtual worlds”. Modern MUVES have 3D isometric/third-person graphics, are accessed over the Internet, allow for some thousands of simultaneous users to interact, and represent a persistent virtual world” (p. 62).

RSS FEEDS: Wusteman (2004) defines RSS feeds as “ a simple XML syntax for describing a channel or feed of recent additions to a website. These additions may be news items, blog updates, library acquisitions or any other discrete information elements.

When devoid of all elaborate graphics and layouts, such minimalist headlines are quite easily incorporated into other websites. RSS, termed a lightweight content syndication technology, offers many advantages over streaming and e-mail, yet is affordable, and for the consumer, no more difficult to access (Curran & McKinney, 2006).

Lynch (2003) gives support to new developing services on the web by agreeing about moving towards more collaborative work environments, as he states that “in digital libraries, we see a continuum from personal monolithic information access to analysis to distributed collaboration in an information-rich environment....This continuum is important because the further digital libraries move to creating collaborative work environments(rather than just representing reference tools that might be embedded in on sit alongside such environments) the greater their potential for significantly changing(it is hope improving) the ability of their user communities to accomplish work.

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4. Methodology

In order to evaluate and understand how quality principles and current trends in web services can improve the NCLHR website services to users, it is important to get an in depth understanding of user's expectations, priorities and perceptions of quality from the NCLHR cultural website. The staff perception is also important to delve into. According to Ministerial Network for Valorizing Activities in digitization , eContentplus [MINERVA EC] (2008) the methodology to be used needs to be considered on a case by case basis, taking into account the information requirements and available resources. As Gorman & Clayton (2005) suggests, "qualitative methods are often considered ideal for assessing the quality of a service provided, when that is of more importance than its frequency or cost (p. 16). The study will be conducted with a qualitative oriented methodological perspective.

New trends in evaluation research look at evaluation in use. Situated evaluation provides a framework for understanding socio-technical innovation, one that focuses analysis on actual practice of use and assumes that "the object of study is neither the innovation alone nor its effects, but rather, the realization of the innovation-the innovation-in-use" (Bruce and Rubin cited in Bishop , Mehra, Bazzelli and Smith, p. 167)

Researchers have also called for a reframing of evaluation to account for how an information system is realized in a specific situation of use. They argue that evaluation "can be understood as a process which should saturate and be constitutive of the design process precisely because the 'context of use' is central" to the analysis of the information system. They consider the problems of evaluating systems in use and conclude that ethnographic insights are central to integrating evaluation into design. (Twidale, Randall, and Bentley cited in Bishop, Mehra, Bazzelli and Smith, p. 167)

4.1 Case Study

The NCLHR website does not exist in a vacuum. It exists surrounded by the staff, the organization and the users. Thus a holistic approach needs to be taken. To look at the background of these different components, the case study was selected.

Yin (1994) defines a case study as “an empirical inquiry that: investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident and in which multiple source of evidence are used”.

4.2 Research Techniques

The techniques used for data collection was interviews with users and focus groups with selected staff from NCLHR. This section describes the research techniques used.

4.2.1 Interviews

4.2.1.1 Purpose

Interview as a technique gives an in-depth understanding of user wants, priorities, perceptions and expectations. Patton (1990) describes the purpose is to allow us to enter into the other person’s perspective [and it] begins with the assumption that the perspective of others is meaningful, knowable, and able to be explicit. A large amount of rich and contextual data can be gleaned from talking to people about their experiences, perceptions and expectations.

Rogers and Bouey (1996) point out that the most utilized data collection method in qualitative research study is the interview.

Curasi (2001, p. 362) summarizes neatly the essence of interviewing specifically and qualitative work in general:

- In-depth interviewing is administered to better understand the experiences, opinions and
- Interpretations of characteristics of a phenomenon. Rather than attempting to grasp the
- Quantities or measurements of the phenomenon, these methods are used to develop a better
- Understanding of how (people) interpret and experience some situation, process or event.

4.2.1.2 Advantages to Present Research

Interviewing gives a holistic view of the topic. It also allows inquiry about the user's perspective for a topic, the words that people use to describe such a topic.

4.2.1.3 Limitations

As interviews are time consuming, it limits the number of participants interviewed.

4.2.1.4 Selection of Participants

The study used purposeful sampling. Patton (1990) described this type of sampling as logical and powerful. Its purpose "is to select information rich cases from which one can learn a great deal about issues of central importance to the purpose of the research".

The users were selected according to their actual frequent use of the website. As Lynch (2003) explains "when we speak of user studies...we must always ask *which* users are the target of the research-the actual users of the system or the intended

users?”(p. 198). To find the actual user the criteria for selection of users was given as using the website at least weekly or monthly.

From the staff, the web manager was selected early in the research to inquire and get information for the MINERVA practical tests which were used (Appendix 2). For selection of users, NCLHR was requested to identify and list down most-frequent-users who use the NCLHR website. However as no data about users were recorded at NCLHR, a list of most-frequent-visitors could not be obtained and thus method of sourcing users had to be changed to a purposive sample of users of the website. This was achieved by talking to colleagues within and outside the organization. In this case the actual users were sought and five were selected.

In purposive sampling a researcher may have a specific group in mind and it may not be possible to specify the population in which case the researcher will attempt to zero in on the target group, interviewing whomever is available (Sommer, 2006).

4.2.1.4 Design

The first step was to define a set of issues to question users regarding quality of web services and current trends in web services. These were collated from the literature review (Appendix 3).

The site selected for data collection was based on the two criteria that it should have a cultural website with online, digitized content and second that it should be accessible to the researcher. NCLHR was contacted and permission received to the researcher to carry out the research.

Patton (1990) explores three basic approaches to collecting qualitative data through open-ended interviews have been identified, the informal conversational interview, the general interview guide and the standardized open-ended interview. The first type consists of entirely spontaneous questions, the second outlines set of issues which can be explored and the thirds consists of predetermined questions where each participant is asked the same questions.

For the purpose of this research a mixed approach is taken as it is possible to combine an interview guide approach with a standardized open-ended approach (Patton, 1990).

It was planned in the beginning to collect data from users who used the institute resources both physically and online, but records of users were not maintained by the institute as such, the researcher used a purposive sample of people who used the website for obtaining information. These participants were asked open ended questions related to the ten principles of the Minerva framework with the addition of current trends in web services.

4.2.1.6 Pilot Test

A pilot test was carried out with two users with the same criteria as the sample with the purpose of checking the questions and testing the terminology. It proved very helpful and as a result the language was changed in some questions.

4.2.1.7 Location

The interviews took place at the workplace of the interviewees. The user could check the website while answering the questions.

4.2.1.8 Analysis

The analysis was carried out according to the themes identified in the literature review.

4.2.2 Focus Groups

4.2.2.1 Purpose

As one of the objectives of the research is to explore staffs perception of quality principles and current trends in web services in cultural heritage websites, focus group with the staff was seen as a suitable technique to understand staffs perception. It also provided a means to explore the current trends in web services which staff perceived that the users required.

The focus group with the staff was planned with the purpose of:

- Obtaining background information about use of cultural heritage websites
- Discussing staffs perceptions in using cultural heritage websites
- Discussing the key issues of quality in cultural heritage websites from the staffs perspective
- Discussing staffs perception on current trends in web services in cultural heritage websites

As Pickard (2007) explains the purpose of focus groups “is to enable a range of perceptions, feelings, and attitudes from participants across a range of issues to be explored.

4.2.2.2 Advantages to Present Research

In this research the focus group will be done after the interviews. This is to capture the users own point of view and then to discover conflicting and confirming views and explore how this matches with the staff.

As Pickard (2007) observes “as the data collection progresses focus groups can be used to explore issues in more depth. Interviews have been carried out but you need to examine the data you have so far based on conflicting views.

4.2.2.3 Limitations

A focus group will be hard to conduct for an inexperienced researcher. Another limitation is that people who are more verbal may be the dominant member of the group. As Gorman and Clayton (2005) warns a “group can be dominated by a strong individual...with the result that its members acquiesce to a single viewpoint and perhaps do not even bother to mention their own convictions. As there are time limits it may provide less depth and detail than individual interviews.

4.2.2.4 Selection of Participants

From the interview with the Web Manager it was gleaned that there was a focus group dedicated to discuss matters regarding the website within the organization at the operational level. This group consisted of nine people. This group met whenever any website issue arose to discuss it. A meeting was scheduled with this group.

4.2.2.5 Design

The focus group was conducted using the key issues identified in the interview guide. The focus group started with a brief introduction about the research and then an introduction of the staff members present. Then each quality principle was discussed (Appendix 4). The discussion took about one hour.

4.2.2.6 Location

The focus group was held at the meeting room of the NCLHR.

4.2.2.7 Analysis

Once the data will be transcribed, the data was analyzed using the themes identified in the literature review as a point of departure.

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5. Findings

The findings are presented in four sections; firstly the general details of users and staff, secondly the results of the checklists from MINERVA Quality Principles with the web manager, thirdly user's feedback from the interview and finally staff feedback from the focus group.

5.1 General Information

5.1.1 Web Manager

The Web Manager is the head of the Information Technology department at NCLHR. He was interviewed and filled the checklists provided in MINERVA quality principles framework. This showed the actual status of the website in relation to the MINERVA quality principles.

5.1.2 Users

User	Gender, age	Field of activity	Academic background	Purpose of use of NCLHR website
Editor	M, 45	Journalism	Phd.	To find information specially on history and heritage
Web developer	M, 28	Advertising	Higher Diploma	To find information on historical events and latest discoveries
Entrepreneur	M, 29	Business	Diploma	To find information about language
School supervisor	F, 29	Teaching	Diploma	To conduct research on history and heritage
Computer programmer	M, 32	Information Technology	Bsc	To find information on old writings

Table 1: Information of users interviewed

The general data collected was adapted from MINERVA EC (2008) from a standardised interview model which can be used for websites and cultural portals.

All the respondents visited the National Centre of Historical and Linguistic Research (NCLHR) website either weekly or monthly. In general everyone visited the website to find information related to history, language and heritage.

5.1.3 Makers

The focus group was carried out with seven staff members. Two members were on office leave. This group as mentioned was a group which met for discussion of the website related issues whenever any changes or additions were required. The group consisted of staff from the operational level and were from the departments of Administration, Culture, History, Heritage and Information Technology. At the beginning of the meeting the group was briefed about the purpose of the meeting. The following points were highlighted. Firstly, the research was being carried out to discover quality factors required for a website with an existing framework as a point of departure and the staffs were confided that everything they said was correct and no judgements will be made on them, that all their ideas were valid and it was the ideas that mattered and so what was most valuable was their explanations for the issues.

5.2 Quality Principles Checklist for the Web Manager

5.2.1 Transparent

TRANSPARENT	YES	NO	N/A
Site Name appears on browser title bar (topmost line of browser)	√		
The active part of the site appears on browser title bar	√		
Site name is clearly displayed in a prominent manner on home page	√		
Site name indicates purpose and nature of site	√		
Site URL is indicative of the purpose of the site	√		
Mission statement exists	√		
Mission statement appears on front page		√	
Mission statement available in multiple languages		√	
Easy to switch mission statement languages			√
Organisation name is prominently displayed	√		
Any animation or visual display can be bypassed			√

Table 2. Checklist for Transparent quality principle

The site name, URL and the mission was available on the website. Since the mission statement was not provided in multiple languages and there was no animation to be bypassed at the front page this was not applicable.

5.2.2 Effective

EFFECTIVE	YES	NO	N/A
User needs have been drawn up based on research involving user groups		√	
Content selection criteria reflect the anticipated user needs	√		
All items are correctly labeled (identified)			√
All items are clearly linked to the correct supporting material			√
All supporting material is factually correct			√
Items and supporting material have been reviewed by experts			√
Item labels and supporting information are multi-lingual			√
All hyperlinks work as expected	√		
Images are presented at a suitable resolution			√
Where necessary, thumbnails are used			√
High-resolution images are also available (subject to IPR)			√
Crumbtrail available		√	
Browser 'back' button works as expected	√		
Page jumps used if necessary		√	
Home page always accessible		√	
Site map available		√	
Site search facility in place		√	

Table 3. Checklist for Effective quality principle

A staff focus group was used to decide on the choice of the content. No research has been done so far on the user. The website has not been reviewed after digitisation. The links of the website were checked when any new material was added. No focus group has reviewed the site in terms of usability and navigation. As images, supporting information and information in other languages were not given in the website separately the other questions were not applicable.

5.2.3 Maintained

MAINTAINED	YES	NO	N/A
Progress-report content all up to date		√	
No 'hanging' or unexpectedly ended progress-report content			√
Ended progress-report content concluded and summarised	√		
Ended progress-report content migrated to new site location	√		
Policy of review and refreshing of all non-static Website content		√	
Periodic refreshing actually taking place		√	
New look' or 'facelift' implemented in last six months		√	
New look or facelift considered / planned		√	
Technical service level policy established		√	
Backup procedures in place and tested	√		
Hardware and software platforms in place to ensure system remains 'up'			√

Table 4. Checklist for Maintained quality principle

Events and news of the current year and older events and news were given separately. Most of the dates are of the past. Backup procedures were in place, so far not written down.

5.2.4 Accessible

ACCESSIBLE	YES	NO	N/A
Site complies with W3C WAI guidelines		√	
Compliance was planned from the start, to maximise text-only value		√	
Animation and multimedia used only where necessary		√	
No proprietary technologies or plugins used	√		

Multiple browser platforms supported	√		
Slow Internet connection not a major obstacle to use	√		

Table 5. Checklist for Accessible quality principle

The site has not been tested with the W3C WAI guidelines. The site was planned to support access to a wide range of delivery channels but there was limitations in the organization in terms of human resource where skilled “multimedia” people were needed and thus the objectives could not be achieved. Almost all of the documents in the website were in pdfs and thus ‘Adobe Reader’ was required which is not given on the website. A mobile version of the website has not been created yet.

5.2.5 User-Centred

USER-CENTRED	YES	NO	N/A
Users involved in the specification and design process		√	
Users have reviewed prototype site elements		√	
Suggestions and feedback have been elicited		√	
User feedback has been formally documented		√	
Feedback has been fed into the design process and implemented		√	
Online facilities exist to allow users to comment and provide feedback	√		
User feedback fed into site reviews and rebuilds		√	
Site includes facilities to allow users to contribute content		√	

Table 6. Checklist for User-centered quality principle

A dedicated user focus group had not been established. As a result most of the questions were not applicable under this principle. Online feedback is available but it is not used extensively. It needs to be promoted. At the moment the feedback is not being documented but can be retrieved when needed. The forum available for users to comment is used more as a questioning tool. Absence of ongoing promotions and difficulty of use of the forum was due to lack of resources.

5.2.6 Responsive

RESPONSIVE	YES	NO	N/A
Question-asking facility available	√		
Response resource identified	√		
Response resource trained and briefed	√		
Response resource has access to sectoral and curatorial experts	√		
Experts have been briefed and have committed to support responses	√		
Response service level policy has been adopted		√	
User forum available		√	
Forum management resource identified		√	
Forum management resource briefed and trained		√	
Moderation process in place			√
Forum management resource has access to experts			√

Table 7. Checklist for User-centered quality principle

Staff have been trained and are there to respond to questions, but there was no user response policy in place. An open forum was in place but this was not fully functional.

5.2.7 Multilingual

MULTILINGUAL	YES	NO	N/A
Some site content available in more than one language		√	
Some site content available in sign language		√	
Some site content available in...immigrant languages		√	
Site identity and profile available in more than one language		√	
Site core functionality available in more than one language		√	
Static content available in more than one language		√	
Simple switching between languages		√	
Site structure and user interface independent of language		√	
Multi-linguality policy exists and drives multi-lingual aspects		√	
Multi-linguality reviews take place on site		√	

Table 8. Checklist for Multilingual quality principle

The website did not have any multilingual content and thus most of the tests in this principle were not applicable. No work has been done so far, but there have been discussions about it. Priority was given to the local language at implementation level.

5.2.8 Interoperable

INTEROPERABLE	YES	NO	N/A
Standards and best practice research took place before site design	√		
Site design uses relevant standards where appropriate	√		
Metadata maps to Dublin Core or DC.Culture			√
Website uses no proprietary HTML extensions	√		
Disclosure functionality uses OAI			√
Distributed database or catalogue search uses Z39.50 or SRW/SRU			√
Distributed site search possible			√
Distributed site search using META tags possible			√
Distributed site search uses a site tool with a remote interface			√
Discoverability profile exists			√
Discoverability profile uses appropriate standard such as RSLP			√
All external interfaces documented			√

Table 9. Checklist for Interoperable quality principle

The website adheres to World Wide Web Consortium) W3C standards when the website was developed. Other issues like metadata and distributed searching has not been discussed in the organization yet.

5.2.9 Managed

MANAGED	YES	NO	N/A
End user must actively endorse a code of conduct or access terms and conditions (e.g. by ticking a tick box)			√
Content quality (e.g. image resolution) is restricted			√
Content is watermarked digitally		√	
Content is visibly watermarked		√	
Site terms of use protect the site owner from infringement of his IPR over the database as a whole		√	
Legally binding agreement exists between content owners and site owner, governing the use of content on the site			√
User privacy policy available for end user review		√	
No spyware or tracking cookies used		√	
Has the implementation of a Creative Commons license been considered?		√	

Table 10. Checklist for Managed quality principle

There is no code of conduct for the users. As there is no Intellectual property rights law yet, copyrighted material is not uploaded onto the website. Records of user's access information were kept for commenting purposes.

5.2.10 Preserved

PRESERVED	YES	NO	N/A
Long term preservation policy exists		√	
Short term preservation strategy exists		√	
Web site backed up regularly	√		
Off-site backups held		√	
Disaster recovery plan exists		√	
Disaster recovery plan has been tested		√	
Periodic backups taken to more durable media (e.g. DLT)		√	
Medium term preservation strategy exists		√	
Media migration has been considered		√	
Media migration is planned or ongoing		√	
Replacement of aging media planned or ongoing		√	
File format and presentation migration and/or emulation planned or ongoing		√	
Website content uses standard file formats	√		
Website uses standard presentation technologies	√		
Website avoids proprietary extensions and plugins	√		

Table 11. Checklist for Preserved quality principle

Although there was no written down policy, backups were done regularly and kept off-site. While all the documents available in the website were available in portable document format (pdf) the plugin was not used in the website.

5.3 Quality Principles for Users and makers

5.3.1 Transparent

5.3.1.1 Users

“The organization needs to get goodwill of the people and so should be more transparent and organization information should be available when the first page is opened rather than look for it deep inside”.

-Entrepreneur

“The website does not give a clear picture of the organization or what the organization is doing or even plan to do. I could not find the mission once I was looking for it. The information is not organized, things are not clear and navigation is difficult. I don't think that they are sure about what they are doing”.

-Web Designer

The banner on the homepage allowed all the users to recognize NCLHR immediately. Some users look at the URL and since it has a “.gov” it is easy to identify that it's a government website. From the interviewees two knew where the mandate was within the website, the other three mentioned that they are not able to see where the mission by looking at the homepage and have not seen it so far.

Some users did not check the organization information as they did not find it necessary. Others were not happy as they felt that the organization did not update the latest events which are organized.

Asked about the expectations of the user from the organization, some asked for a yearly calendar showing the organizations activities. Others wanted more information about the distinguished scholars at the organization and email contact too. Other expectations included procedures to follow on the website in getting information, for example, how to get a photo or an artefact. Except for one

respondent everyone trusted the information presented by the organization in the website as it was from a government source. This was also linked to the fact that they knew distinguished scholars in the organization.

5.3.1.2 Staff

Response of the staff was based on their perception of the website. They discussed that transparency was achieved as the banner gave the name of the organization as well as the URL ending with the “.gov”. They felt that the information given by the organization was quite detailed and users will find this easily. When the issues was raised about presenting the names of staff on the website, the staff felt that government websites need not provide the names of staff as people knew it was a government website.

5.3.2 Effective

5.3.2.1 Content Selection

5.3.2.1.1 Users

“I couldn’t find old articles. Articles like HCP bell and Fritz. Historical items are not there. It doesn’t feel historical.”

-Entrepreneur

Users generally looked for information on history, heritage or language or in combination. Some users looked for organizational events information as well. The priority of information differed. Some wanted history, while others wanted information about authors. A wide spectrum/array of content was discovered from the interviews.

In addition views of other foreign people, international articles, and general language resources giving the bigger picture were seen as relevant material to be presented on the website.

Several users specified that they had to call and ask for information as the needed content was not available on the website. All users felt they had a difficult time in looking for the information. Some reasoned that the website was easy but the content wasn't there. Others felt that it was difficult to click pdfs all the time.

5.3.2.1.2 Staff

Confirming what users mentioned staff said that they got many calls from people to the centre to get information and they asked if it was available. The content which is put online is usually what user's request. People overseas are limited to content online as they get only what is available on the website. Staffs have created a lot of material for presentations and government trips to the islands which cannot be put online due to low webspace as a result of lack of technological. These content has been kept as backup in the meantime.

5.3.2.2 Services

5.3.2.2.1 Users

Most users do not perceive the organization as providing a lot of services. For some respondents it was just information provided online. From the others, one downloaded application forms for competitions while another used the Dhivehi dictionary. Users were mostly aware of the Dhivehi dictionary available online and not any other services.

“They can convert all the hardcopy documents and make them available on the website”.

-Editor

Expectations of services were high among the users. These included making the website more dynamic and user friendly. Users wanted more information available. For example complete history of Maldives, provide reference services and photos. An addition of picture gallery was also requested. Contacts for communication as email and chat were also requested.

5.3.2.2.2 Staff

Staffs perception of services in the website included examples of; information provided about the history of the country, online dictionary and using the organizations email for communication.

5.3.2.3 Image Presentation

5.3.2.3.1 Users

Most users were aware that there were no images presented on the website. The few pictures available were within white papers. Presentation of images was asked in different forms. One user asked for searchable images using keywords which are categorized. Another user asked for the presentation of thumbnails, different resolutions, a cleaner and easier image browser, image bin (something like a temporary place to keep all the images which the user has selected on the fly so that he can download them when his research is complete). Other formats such as printer friendly images, high resolution images were highlighted as being interesting for publishers and newspapers. Users asked for a more user friendly and visual as at the moment there are no icons. One user requested for images to be present separately with thumbnails and different resolutions. The language used in the website was considered clear and simple by most users. One user found it a bit out of date.

5.3.2.3.2 Staff

Staff in the focus group discussed that so far the pictures they had in the website were from whitepapers. They had no plans yet of putting pictures.

5.3.2.4 Navigation

5.3.2.4.1 Users

“Cannot search, so have to click on hyperlinks, so navigation is difficult, not very user-friendly”.

-Editor

Users found navigation not user friendly. They could only click at links and browse.

Expectation for navigation was that it has to be user-friendly, making the way for the user to search and get the content the user wants.

“I think navigation by chronology would be great or something like categorized by people, places, geographic area of the country, food, language, sports, education etc.”

-Web Designer

Users indicated that they wanted navigation by chronology (especially in the case of history) or subject categories.

5.3.2.4.2 Staff

Staff from the focus group had similar feedback for image presentation as content selection. They have a lot of material which cannot be put due to lack of web space and lack of technical and human resources

5.3.2.5 Search

5.3.2.5.1 Users

“I would like search facility to be available with basic and advanced search. It should be like databases used in libraries with lots of options available. An example would be by date, by year and with different tag searches”.

-Editor

All the respondents wanted to be able to search the website. Their expectations for the search engine were high. Everyone wanted basic and advanced search. One user mentioned search option to be available in two languages. Users wanted search results according to relevance. They also wanted to see what other people looked at after viewing a particular document like in Amazon.com

5.3.2.5.2 Staff

Staff discussed that a search engine will be useful but that from the technology side there were difficulties.

5.3.2.6 Design and Overall Look

5.3.2.6.1 Users

“These days you won’t find such a site like this. In reality I don’t like anything about the site but it becomes an imperative to visit the website to get the information. Otherwise I will not go.”

-Editor

“There is a common style of design that leading cultural heritage websites share. It should be clean and colorful. It should be inviting & attractive with lots of pictures, now a days with some video”.

-Web designer

Almost everyone found the design of the website very low. The design was considered amateurish. Most users described the site as dull. The design resulted in users not feeling like the site as a historical cultural site. Users responded that more Maldivian culture to be represented in the design.

5.3.2.6.2 Staff

From the focus group some staff felt that the website design was not bad but that it was too simple.

5.3.3 Maintained

5.3.3.1 Users

“It seems to be a very unprofessional site. It doesn’t look maintained. I don’t check, I don’t know where it is, do they have a news section. It doesn’t look like it updates even if it has the information. It doesn’t strike. The processing speed doesn’t seem that good either. Even though the website has been updated, it doesn’t seem so because of the design and look of the website. It is a major source of information for the whole country so it should be maintained in an advanced level and everything should be updated well up-to-date”.

-Editor

Some users got distracted from the updates due to the design of the website as it did not “look” maintained. Others who check the latest news saw that the website was maintained.

The user’s expectations were very high for the maintenance of the website. All users wanted the latest updates available in an easily accessible way. Users expected to be updated with a mechanism such as RSS feeds to get the latest news.

Better Maintenance was related to interactivity with addition of flash videos and other file formats. Everyone wanted updates as soon as possible and also some users requested yearly calendars. This was also mentioned in the quality principle of transparency.

5.3.3.2 Staff

“The offices daily chores take a lot of time and so not much time to put information on the website”.

-Staff

Staff felt that the general administrative work in their department hindered work which related to creating documents for the website. The maintenance involved adding documents to the website. This was not done on a scheduled basis. Lack of skilled staff was mentioned as an issue when dealing with maintenance. Technical issues were highlighted as there was no capacity in terms of webspace. Now only current events updated.

5.3.4 Accessible

5.3.4.1 Users

All users concluded that the website was not designed for people with special needs. For basic level of accessibility respondents wanted an increase in font size.

5.3.4.2 Staff

Staff believed that from the level it was made it was more accessible compared to other government websites which were more difficult to use. The expectations of staff were that everyone should have access to the basic information including content. Any visitor or person who wants the data from the website should be able to get it.

5.3.5 User-Centred

5.3.5.1 Users

“The organization doesn’t seem like they check whether we look or not.”

-School Supervisor

“I don’t think the website focuses on the user. It is very lame and it is the most basic level. Just to make a website. It is not dynamic and allows no interaction for the user”.

-Entrepreneur

For being user centered, respondents gave an array of requests. Some users wanted personalization where an account can be created and past history can be seen. All the respondents agreed that the website does not take account of the user.

5.3.5.2 Staff

Most of the staff did not comment on this principle. Content selection was described as being user-centered by some staff. One staff described the website as being all about the user.

5.3.6 Responsive

5.3.6.1 Users

“I usually call the people as we know who they are based on offline experience.”

-Editor

Users wanted replies to their queries as soon as possible. In being responsive the organization was expected to have different options available like email and phone numbers so that users can contact them. Users felt that the credibility of the organization will be high if more information was provided about the experts working in the separate departments of the organization.

5.3.6.2 Staff

[On average number of requests]“It depends. Email requests are few. People also call a lot. Then there are the college students who get assignments. It’s a big rush”.

-Staff

“People usually want to meet in person. Mr. X is busy the whole day with meetings.”

-Staff

In the focus group, it was discussed that the same priority is given to written letters or email. Requests from users have not been recorded as of yet. One respondent mentioned that email requests are much less than offline requests. Staff also added that more time was spent in answering face to face queries.

5.3.7 Multilingual

5.3.7.1 Users

“Now we are talking about globalization. So everyone is looking at different types of information for research. International languages like English, plus European languages like French if possible. Arabic is also important as it is used in Maldives. Since Maldives is connected to the Middle East. Japan is also important to Maldives so this can be a possibility.”

-Editor

“German, Russian, Japanese and Italian. As lot of tourists are coming and more people will appreciate it”.

-Entrepreneur

“Information about the organization, useful for foreigners as this is the only website which deals with these subjects in Maldives. Government site is more trusted than other sites. Most important general information which can be selected”.

-School Supervisor

Everyone expected information to be presented in different languages. Some users wanted many languages while most users mentioned English and Dhivehi. If possible they expected everything to be presented in other languages.

Users identified the importance of tourism to the country and hence having information in the languages of countries with most tourist arrivals.

5.3.7.2 Staff

The staffs were aware that people who don't know Dhivehi cannot use it. Staff pointed to the lack of resources for carrying out activities like translation. Some documents are available in English.

5.3.8 Interoperable

5.3.8.1 Users

“The website is very basic but it would be very efficient if it was possible. When talking on this topic it is important that they should have available links to other library websites”.

-Editor

Users did not find any features in the website which allowed for interoperability. They expected distributed searching but this was not available.

5.3.8.2 Staff

Staff were aware that standards are needed for interoperability and explained that standards have been used in developing the website and so far they have not planned on linking to other websites.

5.3.9 Managed

5.3.9.1 Users

“An end user code of conduct is not a big issue as long as I get the data, as we will not be submitting sensitive data.”

-Editor

“I think once the website is developed up to an adequate or current standard an end user code of conduct will be important”

-Web designer

Regarding privacy of end user users some respondents felt that it was not required at the moment. Some users expected a code of conduct but other users did not need see it as important with no laws in place.

5.3.9.2 Staff

In the focus group the staff were aware of copyright issues and as such commented that they did not put copyrighted material but highlighted that there is no copyright law at the moment. This was tied to having less resource as a result of which these items cannot even be put online even if these items were free.

5.3.10 Preserved

5.3.10.1 Users

“It’s hard to say [if archiving occurs] it seems that they have limited everything, more like just for the sake of having a website to be frank”

-Web Designer

Most users felt that archiving was a priority. Users expected an archive in the form of a database with different formats (image, video, podcast and documents).

5.3.10.2 Staff

Staff felt archiving was a priority. At the moment due to lack of web space the backups were kept separately.

5.4 Current Trends in Web Services

5.4.1 Users

“It should be a web2.0 environment; they have to provide more interactive services, user friendly environment, technologies that would provide the multimedia and text in user friendly formats. Yes. They should provide more services as they develop. The main point is being user friendly and being in contact. The presentation and content has to be good. The speed is also important.”

-Editor

“Video is important especially of locations where it’s difficult to visit. Another great and easy technology is using 365 degree photos and stitching them into a 3d viewable environment or object using QuickTime VR. I think websites are a great way to display and share cultural heritage across boundaries between countries. It is an easy and less expensive way than museums, of course with some compromises. However harnessing the new trend of the web with images, audio, video and perhaps to come a web friendly version of 3d that isn’t present much at the moment, could create a new wave of e-heritage centers with a far more richer myriad of information “

-Web Designer

“Audio-giving Dhivehi speeches”

-Entrepreneur

All the users were familiar with the current trends in web services inquired during the interview. Users expected a variety of current web services to be available in the website. Audio and video formats were specially seen as of use. This can include historical speeches given by Maldivians. User friendliness and being in contact was highlighted.

5.4.2 Staff

“For such an issue we should keep in mind the outcome of merging the public and us. This can be the fastest way of providing services, but the question is where the official status will stand”.

-Staff

Most of the staff was new to the concept of using current trends in web services in cultural websites. The use of web services which are current trends have not been discussed. The issue of open discussions in public on the website was not entertained by the staff. Official status and authority was adhered.

5.5 Analysis of Findings

5.5.1 In a Nutshell

-Answers from the Interview Guide from the interviewed five users and

-Discussion from focus group of ‘makers’

were summed up using themes identified with MINERVA quality principle framework(MINERVA, 2005) and current trends in web services (MINERVA, 2008), yielding *expectations, priorities and perceptions* of both website users and website makers. Hence expectations, priorities and perceptions of both users and makers are explored in this study as set in the objectives of this study achieving the 6 objectives of this study. The MINERVA quality principle framework (MINERVA, 2005) and current trends in web services (MINERVA, 2008) have been highlighted as suitable to evaluate cultural websites (Biscogli et al., 2008 ;Signore, 2005).

5.5.2 When Analyzed

Users' had high expectations from cultural heritage websites. They expected more information about the organization, its activities and updates, more user friendly services and search facilities with variety of options. Users' priorities in using a cultural heritage website included having available content in a variety of formats. Archiving of content on website was a high priority and also having easy access to the staff of the organization. Regular updates were also considered a priority. Users perceived quality of cultural heritage websites as being related to user friendly services and content provided in a variety of formats and ways.

Makers perception of quality, in cultural heritage websites providing content in the form of documents. Users perceived current trends in web services very positively and wanted such services to be available in cultural heritage websites. For staff, current trends in web services was considered new and perceived it with caution. All the objectives of this study were achieved.

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6. Conclusion

Cultural heritage websites aim to provide people with the information they need to improve their quality of life and sense of belonging.

For users quality of cultural heritage websites started at **content**. All the quality principles from MINERVA, most important of which were highlighted, as being **effective** and **responsive**, had to be based on this **content**.

On the other hand, for website-makers quality of cultural heritage website ended at the **content**. The content could not be provided due to offline daily work at the organization and lack of resources. For website-makers, users were perceived as a unified group of people.

Users were very **fluent** with current web services and expected to get these services from such a cultural heritage website. 'Makers' were focused on the provision of content and were **cautious** of such services.

The study explored both, the users and makers, expectations, priorities and perceptions of quality from a cultural heritage website.

What is 'quality' for cultural heritage website users, based on web features from MINERVA framework, when 'using' a cultural website?

Quality for users were focused on having available

- content related to users need and in a variety of *formats* and *different languages*.
- information about the organizations staff and policies available to check when needed.
- a more user-friendly experience of the website
- more new services

For users quality of cultural heritage websites started at **content**. This content needed to be surrounded by all the other quality factors in the MINERVA principles, most important of which were highlighted, as being **effective** and **responsive** to the user.

What is quality for cultural heritage website-makers, based on web features from MINERVA framework, when 'making' cultural heritage website?

Quality for 'makers' were tied to having available means to give users

- content which users needed
- responding to users offline more than online
- more content but lack in resources such as financial, human and technological

For website-makers quality of cultural heritage website ended at the **content**. The content could not be provided due to offline daily work at the organization and lack of resources. For 'makers' users were perceived as a unified group of people.

What are the current web services “users” and “makers” want in a cultural heritage website?

Users were very *fluent* with current web services and expected to get these services from such a cultural heritage website. ‘Makers’ were focused on the provision of content and were *cautious* of such services.

The primary goal of the study was to evaluate and understand how quality principles and current trends in web services can improve the services offered by cultural heritage web sites to users.

The above conclusions will help website makers in creating quality cultural heritage websites according to user expectations while giving valuable insight to current trends in web services. Further studies can be done to explore the users’ expectations more and users can be involved in the design of the website.

7. Limitations

The research came across several limitations. For the literature review, website evaluation in Maldives was a new field thus secondary sources on website evaluation of Maldives were not available for study. In methodology the sample selection procedure was a limitation as there was no data available about users or registered users of the NCLHR or the website.

The methods used for data collection, both methods interviews and focus groups rely on users and website-makers accounts and not on actual interaction with the NCLHR website, records of actual interactions showing web analytics measurement have not been recorded.

These factors were mainly attributed to developing countries. As McDonald (200?) has explained, the challenge in developing countries has been to build the capacity not only to carry out the transition to a digital environment but to do so in the face of often collapsed records systems, the absence of qualified information specialists, and the lack of resources to ensure that whatever is in place can be sustained through time.

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8. Thoughts

This section covers thoughts and ideas picked up along the way from various areas of the study during its timeline. Even if these thoughts and ideas may not have any grounds of verification, these bits and pieces of information was considered to add value to the overall study.

This study was initiated in Dec 2008 for my thesis, with the thought of understanding how and why a website is perceived as a quality website, to its users due to my interest in evaluation of websites. It was to clearly understand the key factors which are necessary to create a quality website for its users.

However interesting the concept was, the above initial thought was too broad for an accurate study and thus the area of study was narrowed down to cultural heritage websites. The MINERVA quality principle framework was selected to be the conceptual framework and a point of departure for the thesis. This framework specializes on cultural heritage websites.

Literature Review

Literature was examined at the beginning of the research to get an in-depth knowledge for the topic starting from MINERVA publications. The literature for evaluation of websites was huge and there were many evaluation frameworks. This was narrowed to cultural websites.

Interviews and Focus Group

The interviews provided in-depth information about cultural heritage website use. Users were very keen to provide their feedback on the website. They were very interested that people were researching about such websites. NCLHR were quite delighted with the research carried out for their website. They looked forward to the results of the study. The focus group was very stimulating. The staff were keen to provide feedback. From the seven members some spoke more than the others but everyone participated.

'Feelings' towards websites

One of the most interesting discoveries is to understand to some extent, how users actually see and feel about cultural heritage websites. Users actually seem to have feelings towards websites however they may be considered as anonymous IP addresses hitting the servers on which a cultural website is hosted. These are not just IP's, but users who actually feel in ways about a particular website. Websites help retrieve information a user is trying to find that according to users give relief and satisfaction. Users see websites as 'helpers' or 'assistants' rather than just solutions. May it be two websites, providing the same services, users have a unique mental signature associated with each of the website. These signatures

change over time based on user experience and how the website evolves. With the great shift of websites just providing information about an organization to websites that assist us in making decisions or answering questions, user perception about website has changed a great deal.

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Appendix

Appendix 1

MINERVA Quality Principles Framework Definitions

No	Principle	A quality website must:
1	Transparent	be transparent, clearly stating the identity and purpose of the Website, as well as the organization responsible for its management.
2	Effective	select, digitize, author, present and validate content to create an effective Website for users.
3	Maintained	implement quality of service policy guidelines to ensure that the Website is maintained and updated at an appropriate level.
4	Accessible	be accessible to all users, irrespective of the technology they use or their disabilities, including navigation, content, and interactive elements.
5	User-centered	be user-centered, taking into account the needs of users, ensuring relevance and ease of use through responding to evaluation and feedback.
6	Responsive	be responsive, enabling users to contact the site and receive an appropriate reply. Where appropriate, encourage questions, information sharing and discussions with and between users.
7	Multilingual	be aware of the importance of multilinguality by providing a minimum level of access in more than one language
8	Interoperable	be committed to being interoperable within cultural networks to enable users to easily locate the content and services that meet their needs.
9	Managed	be managed to respect legal issues such as IPR and privacy and clearly state the terms and conditions on which the Website and its contents may be used.
10	Preserved	adopt strategies and standards to ensure that the Website and its content can be preserved for the long-term.

 Appendix 2
 MINERVA Quality Principles Framework Checklist

TRANSPARENT	YES	NO	N/A
Site Name appears on browser title bar (topmost line of browser)			
The active part of the site appears on browser title bar			
Site name is clearly displayed in a prominent manner on home page			
Site name indicates purpose and nature of site			
Site URL is indicative of the purpose of the site			
Mission statement exists			
Mission statement appears on front page			
Mission statement available in multiple languages			
Easy to switch mission statement languages			
Organization name is prominently displayed			
Any animation or visual display can be bypassed			

EFFECTIVE	YES	NO	N/A
User needs have been drawn up based on research involving user groups			
Content selection criteria reflect the anticipated user needs			
All items are correctly labeled (identified)			
All items are clearly linked to the correct supporting material			
All supporting material is factually correct			
Items and supporting material have been reviewed by experts			
Item labels and supporting information are multi-lingual			

All hyperlinks work as expected			
Images are presented at a suitable resolution			
Where necessary, thumbnails are used			
High-resolution images are also available (subject to IPR)			
Crumb-trail available			
Browser 'back' button works as expected			
Page jumps used if necessary			
Home page always accessible			
Site map available			
Site search facility in place			

MAINTAINED	YES	NO	N/A
Progress-report content all up to date			
No 'hanging' or unexpectedly ended progress-report content			
Ended progress-report content concluded and summarized			
Ended progress-report content migrated to new site location			
Policy of review and refreshing of all non-static Website content			
Periodic refreshing actually taking place			
New look' or 'facelift' implemented in last six months			
New look or facelift considered / planned			
Technical service level policy established			
Backup procedures in place and tested			
Hardware and software platforms in place to ensure system remains 'up'			

ACCESSIBLE	YES	NO	N/A
Site complies with W3C WAI guidelines			
Compliance was planned from the start, to maximize text-only value			
Animation and multimedia used only where necessary			
No proprietary technologies or plugins used			
Multiple browser platforms supported			
Slow Internet connection not a major obstacle to use			

USER-CENTRED	YES	NO	N/A
Users involved in the specification and design process			
Users have reviewed prototype site elements			
Suggestions and feedback have been elicited			
User feedback has been formally documented			
Feedback has been fed into the design process and implemented			
Online facilities exist to allow users to comment and provide feedback			
User feedback fed into site reviews and rebuilds			
Site includes facilities to allow users to contribute content			

RESPONSIVE	YES	NO	N/A
Question-asking facility available			
Response resource identified			
Response resource trained and briefed			
Response resource has access to sectoral and curatorial experts			
Experts have been briefed and have committed to support responses			
Response service level policy has been adopted			
User forum available			
Forum management resource identified			
Forum management resource briefed and trained			
Moderation process in place			
Forum management resource has access to experts			

MULTILINGUAL	YES	NO	N/A
Some site content available in more than one language			
Some site content available in sign language			
Some site content available in...immigrant languages			
Site identity and profile available in more than one language			
Site core functionality available in more than one language			
Static content available in more than one language			
Simple switching between languages			
Site structure and user interface independent of language			
Multi-linguality policy exists and drives multi-lingual aspects			
Multi-linguality reviews take place on site			

INTEROPERABLE	YES	NO	N/A
Standards and best practice research took place before site design			
Site design uses relevant standards where appropriate			
Metadata maps to Dublin Core or DC.Culture			
Website uses no proprietary HTML extensions			
Disclosure functionality uses OAI			
Distributed database or catalogue search uses Z39.50 or SRW/SRU			
Distributed site search possible			
Distributed site search using META tags possible			
Distributed site search uses a site tool with a remote interface			
Discoverability profile exists			
Discoverability profile uses appropriate standard such as RSLP			
All external interfaces documented			

MANAGED	YES	NO	N/A
End user must actively endorse a code of conduct or access terms and conditions (e.g. by ticking a tick box)			
Content quality (e.g. image resolution) is restricted			
Content is watermarked digitally			
Content is visibly watermarked			
Site terms of use protect the site owner from infringement of his IPR over the database as a whole			
Legally binding agreement exists between content owners and site owner, governing the use of content on the site			
User privacy policy available for end user review			
No spyware or tracking cookies used			
Has the implementation of a Creative Commons license been considered?			

PRESERVED	YES	NO	N/A
Long term preservation policy exists			
Short term preservation strategy exists			
Web site backed up regularly			
Off-site backups held			
Disaster recovery plan exists			
Disaster recovery plan has been tested			
Periodic backups taken to more durable media (e.g. DLT)			
Medium term preservation strategy exists			
Media migration has been considered			
Media migration is planned or ongoing			
Replacement of aging media planned or ongoing			
File format and presentation migration and/or emulation planned or ongoing			

Appendix 3 Interview Guide

Improving Web Services to Users by Exploring Users Perception of Quality Principles in NCLHR Website

The purpose of this interview is to get information for the research carried out for my Master's thesis about evaluation and understanding of users of quality principles and current web trends in services. Your insights on the use of the NCLHR website based on quality principles, your knowledge, experiences, attitudes and feelings are important for this research.

About 5 people will be interviewed to get information. All of them are frequent users of the NCLHR website. Nothing you say will ever be identified with you personally. As we go through the interview, if you have any questions about why I'm asking something, please feel free to ask.

This interview guide is divided into 2 sections.

Section 1: Demographic Details

This section includes details like gender, age, occupation

Section 2: Quality Principles

This section presents the quality principles questioned according to: perceptions, priorities and expectations.

Section 1 : Demographics And General Details

PERSONAL DETAILS

Gender :

Male-

Female-

Age :

Occupation :

Level of Education:

Main field of activity:

Languages you know:

Disabilities:

Visual-

Hearing-

Learning-

Mobility-

How often do you visit the website?

First time-

Seldom-

Monthly-

Weekly-

Daily-

Have you visited NCLHR in person?

Yes-

No-

What did you know about NCLHR before visiting the website?

Nothing-

The name, but little else-

Some idea of NCLHR and how to visit-

A great deal about NCLHR-

PURPOSE for using NCLHR website

Why do you visit the website?

- To learn about NCLHR (What it is, what it does, its history, and its mission, contacts)
- To conduct research on (Please be as specific as possible, i.e.: genealogy, tourism, digitization, etc.)
- To find information for my thesis or dissertation
- To learn about events and news (special days like poetry or writing)
- To learn about available materials
- To download documents/images
- Just to browse
- To find information about Maldivian heritage
- To find information about Maldivian history
- To find information about Maldivian language
- To use the online Dhivehi dictionary(Basfoi)
- To find information about a specific author or historical incident
- To find workshop/conference papers

Section 2

1. Transparency

How do you identify which organization it is? Do you know where the mission is?

Are you satisfied with the information provided about the organization itself (mission, objectives, organization chart, ongoing activities etc)

What information is essential to be present about the organization?

Do you expect any additional information from the website about the organization?

Do you trust the information on this website (organization and subject information)?

2. Effectiveness

2.1 Content

What information do you look for from the website?

What information do you want most from the website?

When you visit the website, how often do you find the information you are looking for?

How easy is it for you to find information on the website?

What was the last thing you looked for on this website but you could not find?

2.2 Services

What services do you use from the website?

What services are you aware of from the website?

What are the services which are essential for such a website?

What services do you want from the website?

2.3 Presentation

Are images presented in the way you want?

What other ways would you like the images to be presented e.g. different resolutions available, thumbnails available?

What do you think of the language and the terminology used?

2.4 Navigation

When using the website, how do you navigate to find the information?

What is your priority in navigating?

How do you expect navigation should be available in cultural website?

2.5 Search

How do you think you are able to search for information in the website? What are the different ways available?

How do you want the search engine to function? Any eg?

What are the basic ways in which searching should be available?

What more ways do you expect to search the website?

- By author
- By chronology
- By title
- By collection
- By simple search
- By advanced search
- By theme
- By user profile
- By scenario
- By image
- By documents
- By videos
- By audio

2.6 Design/Overall Look

What do you think of the overall design and look of the website? What do you dislike about the look of the website? What do you like about the look of the website?

Do you like the color scheme?

What do you expect a cultural heritage website to look like?

3. Maintenance/Updates

Does the website look maintained? For example news updated, old news archived?

What should be the basic level of maintenance in the website?

What would you want available when the website is maintained or updated?

What do you expect from the website when information is said to be maintained or updated? What duration would you expect updates to occur?

4. Multilingual

Do you want information to be presented in other languages? What languages?

Which information do you want to be present in that Language?

What minimum amount of information should be present in the website in more than one language?

What other languages would you like the website to be in?

5. Accessibility

Do you think the website is accessible to all types of people?

What is the basic level of accessibility which should be available for users?

6. User-Centered

Do you think the website takes account of the user?

What priority should be given in terms of being user-centered?

7. Responsiveness

Have you ever used the “Netun Kanthaka Edhey” (Request) option on the website?

Do you think the website is responsive to the user?

What priority should be given in terms of being responsive?

8. Interoperable

Is the website interoperable? Is information presented in a way that it can be easily linked to other resources or allow meta searching?

Do you think the website allows for interoperability? Linking to other resources?

9. Managed

Does the website look safe?

Do you want an end user code of conduct?

Do you want to know how your information of use of the website will be used?

Do you expect IPR protection and privacy of the end user?

10. Preservation

Is archiving a priority for you?

Do you think archiving occurs in the website?

What items do you want preserved in this website?

11. Current trends in web services

What current trends of web services do you think are available from the website?

What current trends of web services do you expect from such a website?

Would you be interested in these features in the website?

- Blogs
- Wikis
- Content in a pod
- Micro content
- Social networks
- Multi user virtual environments (MUVE)
- RSS feeds

Appendix 4

Focus Group Interview Guide

1. Good afternoon everyone. Thank you for taking part in this discussion. As mentioned before this discussion is part of the research done for a Master's thesis in International Masters in Digital Library learning. The primary goal of the research is to evaluate and understand how quality principles and current trends in web services can improve the services offered by cultural heritage web sites to users. In this research an existing framework is used to evaluate the quality of a website, everything we discuss here and everything that you say is correct, a judgment will not be made on that, all your ideas are very valid, what matters are your ideas, since whatever you say we justify it by your judgments and reasoning. So what is most valuable and valid are the explanations given by you explaining that this is happening.
2. Firstly if could you please tell us the area which you work in and give us a brief explanation, everything said here is in total confidence and even under the international data protection act it is forbidden to use anything you say here apart for research purposes?
3. Each principle will be mentioned and you can give an input as to how your thinking has been so far on this criterion.
4. First thing is transparent. A quality website must be transparent, clearly stating the identity and purpose of the website, as well as the organization responsible for its management.
5. Effective. A quality Website must select, digitize, author, present and validate content to create an effective Website for users.
6. Maintained. A quality Website must implement quality of service policy guidelines to ensure that the Website is maintained and updated at an appropriate level.
7. Accessibility, A quality Website must be accessible to all users, irrespective of the technology they use or their disabilities, including navigation, content, and interactive elements.
8. User-centered. A quality Website must be user-centered, taking into account the needs of users, ensuring relevance and ease of use through responding to evaluation and feedback.

9. Responsive. A quality Website must be responsive, enabling users to contact the site and receive an appropriate reply. Where appropriate, encourage questions, information sharing and discussions with and between users?
10. Multilingual. A quality Website must be aware of the importance of multilingualism by providing a minimum level of access in more than one language.
11. Interoperable. A quality Website must be committed to being interoperable within cultural networks to enable users to easily locate the content and services that meet their needs.
12. Managed. A quality Website must be managed to respect legal issues such as IPR and privacy and clearly state the terms and conditions on which the Website and its contents may be used.
13. Preserved. A quality Website must adopt strategies and standards to ensure that the Website and its content can be preserved for the long-term.

14. Current trends in web services.

- Blogs
- Wikis
- Content in a pod
- Micro content
- Social networks
- Multi user virtual environments (MUVE)
- RSS feeds

Thank you